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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/055,984	04/07/1998	TAE WOON KIM	K-018	4692
34610	7590	02/09/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			NGUYEN, TOAN D	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/055,984

Applicant(s)

KIM, TAE WOON

Examiner

Toan D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, 27-31 and 38-46 is/are allowed.
- 6) ☒ Claim(s) 10, 11, 13, 14, 16, 17, 21, 22, 32-36 and 47-49 is/are rejected.
- 7) ☒ Claim(s) 12, 15, 18-20, 23-26 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10-11, 13-14, 16-17, 21-22, 32-36 and 47-49 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Billstrom et al. (US 5,590,133) in view of Essigmann (US 5,850,391).

For claims 10-11, 13-14, 16-17 and 21-22, Billstrom et al. disclose apparatuses and mobile stations for providing packet data communication in digital TDMA cellular systems, comprising:

inputting an identification number of a called party mobile station (figure 14, col. 22 lines 22-24);

establishing a first call from a calling party mobile station to a mobile data network interworking unit and then establishing a first traffic channel (figure 10, col. 17 line 55 to col. 18 line 27);

calling the called party mobile station at said mobile data network interworking unit (figure 10, reference DATA (8), col. 18 lines 26-27);

establishing a second call from said called party mobile station to said mobile data network interworking unit when a data response comes from said called party mobile station and then establishing a second traffic channel after said mobile data path

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connection module informs said public network data path connection control module of the normal state of a first data path between a mobile switching center and the mobile data network interworking unit (figure 11, reference DATA (1), col. 18 lines 28-30);

establishing a call between said mobile switching center and the mobile data network interworking unit through a second data path (col. 22 line 11 to col. 24 line 27); and

connecting said first and second traffic channels through at least one of the interworking unit to perform circuit data service (col. 17 line 55 to col. 18 line 30).

However, Billstrom et al. do not disclose at least one modem of the interworking unit to perform circuit data service. In an analogous art, Essigmann discloses at least one modem of the interworking unit to perform circuit data service (col. 8 line 25).

One skilled in the art would have recognized at least one modem of the interworking unit to perform circuit data service to use the teachings of Essigmann in the system of Billstrom et al. Therefore it would have been obvious to one of ordinary skill in the art at the time invention, to use the at least one modem of the interworking unit to perform circuit data service as taught by Essigmann in Billstrom et al.'s system with the motivation being to provide with appropriate parameters and settings as indicated by extracted IVITF control data (col. 8 lines 9-12).

For claims 32-34 and 47-49, Billstrom et al. disclose apparatuses and mobile stations for providing packet data communication in digital TDMA cellular systems, comprising:

a data path connector to couple over at least first and second data paths to a mobile switching center (figure 14, col. 21 lines 35-47 and col. 23 line 1 to col. 24 line 27).

However, Billstrom et al. do not disclose:

a main processor to form a traffic channel of a mobile data path between a first mobile terminal and a second mobile terminal when a circuit data service option is detected by the mobile switching center from a base station;

a circuit data processor, coupled to the main processor and configured to analyze a signal transmitted from the first mobile terminal if a protocol between the first mobile terminal and the second mobile terminal is normally executed, and to transmit an identification number from the second terminal to the main processor; and

a switching circuit, configured to selectively switch a connection between the circuit data processor and data path connector in accordance with a control signal from the main processor to perform circuit data service, wherein the circuit data processor comprises at least one modem.

In an analogous art, Essigmann discloses:

a main processor to form a traffic channel of a mobile data path between a first mobile terminal and a second mobile terminal when a circuit data service option is detected by the mobile switching center from a base station (col. 7 lines 52-54);

a circuit data processor, coupled to the main processor and configured to analyze a signal transmitted from the first mobile terminal if a protocol between the first mobile terminal and the second mobile terminal is normally executed, and to transmit an

identification number from the second terminal to the main processor (col. 7 line 64 to col. 8 line 1); and

a switching circuit (figure 2, col. 4 lines 8-9), configured to selectively switch a connection between the circuit data processor and data path connector in accordance with a control signal from the main processor to perform circuit data service, wherein the circuit data processor comprises at least one modem (col. 7 line 49 to col. 8 line 12).

One skilled in the art would have recognized a main processor to form a traffic channel of a mobile data path between a first mobile terminal and a second mobile terminal to use the teachings of Essigmann in the system of Billstrom et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the main processor to form a traffic channel of a mobile data path between a first mobile terminal and a second mobile terminal as taught by Essigmann in Billstrom et al.'s system with the motivation being to identify the appropriate IWF control data associated with the requested IWF service and transmit a first ISIP signal 350 using a directory number assigned to the SIWF telecommunications node 190 as the called party number (col. 7 lines 60-64).

For claims 35 and 36, Billstrom et al. disclose apparatuses and mobile stations for providing packet data communication in digital TDMA cellular systems, comprising:

inputting an identification number of a first mobile station (figure 14, col. 22 lines 22-24);

establishing a first call from a second mobile station to a mobile data network interworking unit and then establishing a first traffic channel (figure 10, col. 17 line 55 to col. 18 line 27);

calling the first mobile station at the mobile data network interworking unit (figure 10, reference DATA (8), col. 18 lines 26-27);

establishing a second call from the first mobile station to the mobile data network interworking unit when a data response comes from the first mobile station and then establishing a second traffic channel after a mobile data path connection module informs a public network data path connection control module of the normal state of the first data path (figure 11, reference DATA (1), col. 18 lines 28-30);

establishing a call between said mobile switching center and the mobile data network interworking unit through the second data path (col. 22 line 11 to col. 24 line 27); and

connecting the first and second traffic channels through at least one of the mobile data network interworking unit to perform circuit data service (col. 17 line 55 to col. 18 line 30).

However, Billstrom et al. do not disclose at least one modem of the interworking unit to perform circuit data service. In an analogous art, Essigmann discloses at least one modem of the interworking unit to perform circuit data service (col. 8 line 25).

One skilled in the art would have recognized at least one modem of the interworking unit to perform circuit data service to use the teachings of Essigmann in the system of Billstrom et al. Therefore it would have been obvious to one of ordinary skill in

the art at the time invention, to use the at least one modem of the interworking unit to perform circuit data service as taught by Essigmann in Billstrom et al.'s system with the motivation being to provide with appropriate parameters and settings as indicated by extracted IVITF control data (col. 8 lines 9-12).

Allowable Subject Matter

3. Claims 12, 15, 18-20, 23-26 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Claims 1-9, 27-31 and 38-46 are allowed.
5. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art fails to teach a combination of the steps of:
a mobile switching center for detecting a service option included in the signal transmitted from the base stations and base station controllers and for switching between a circuit data service and a packet data service based on the detected service option, in the specific combination as recited in the claim.

Regarding claim 27, the prior art fails to teach a combination of the steps of:
a mobile switching center (MSC) configured to detect a service option included in the signal transmitted from the at least one base station and base station controller and to switch between a circuit data service and a packet data service based on the detected service option, in the specific combination as recited in the claim.

Response to Arguments

6. Applicant's arguments filed June 17, 2004 have been fully considered but they are not persuasive.

The applicant argues with respect to claims 10, 21 and 35, that the combination of Essigmann and Billstrom does not teach or suggest all the features of independent claim 10 including connecting the first and second traffic channel through at least one modem of the interworking unit to perform circuit data service. The examiner disagrees.

Applicant's attention is directed to Billstrom patent at col. 17 line 55 to col. 18 line 27 (figure 10), where Billstrom (primary reference) clearly teaches "To initiate a packet transfer in the mobile originated direction, illustrated by the sequence diagram in Fig. 10" as "establishing a first traffic channel through the interworking unit to perform circuit data service" mean in claim 10. Billstrom further teaches at col. 18 lines 28-29 (figure 11 reference DATA (1)), "When a packet, addresses to an MS is received by the PD router in the MSC/VLR where the MS is registered" as "second traffic channel through the interworking unit to perform circuit data service" mean in claim 10. Essigmann (secondary reference) teaches at col. 8 lines 9-12 (figure 5, reference 120), "the modem 120 is seized with appropriated parameters and setting as indicated by the extracted IWF control data" as "at least one modem of the interworking unit to perform circuit data service" mean in claim 10. The same argument above is also applied for claims 21 and 35.

Furthermore, the applicant argues with respect to claim 32, that Billstrom and Essigmann do not teach or suggest a switching circuit, configured to selectively switch a connection between the circuit data processor and the data path connector in

accordance with a control signal from the main processor to perform circuit data service, where the circuit data processor comprises at least one modem. The examiner disagrees. Applicant's attention is directed to Essigmann at col. 8 lines 1-12 (figure 5), where Essigmann clearly teaches "As a result, a first circuit call connection 200 from the serving MSC 30 to the SIWF telecommunication node 090 is established. The SIWF application module 180 within the SIWF telecommunications node 190 extracts the IWF control data 390 encapsulated within the optional parameters of the received ISUP signal 350 and identifies the appropriate IWF hardware or software device. For example, for a modem call connection request, the modem 120 is seized with appropriate parameters and setting as indicated by the extracted IWF control data and link 370 with the first circuit call connection 200."

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

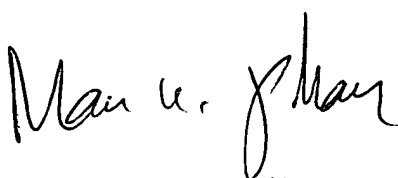
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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MAN U. PHAN
PRIMARY EXAMINER